

What is claimed is:

Sub 1
1. A method for chemical-mechanical polishing a wafer using a CMP apparatus
2 having a polishing table including a polishing pad and a wafer carrier adapted to carry a
3 wafer relative to the center of the polishing table, the method comprising:
4 using the polishing pad and polishing the wafer at a position relative to the
5 center;
6 determining that the wafer is being polished in a center-offset manner; and
7 conditioning the pad as a function of the wafer being polished in the center-
8 offset manner.

1 2. A method for chemical-mechanical polishing, according to claim 1, wherein the
2 center-offset manner includes at least one of: a center-fast or center-slow manner, and
3 further including inspecting a wafer during the polishing process.

1 3. A method for chemical-mechanical polishing, according to claim 1, wherein
2 determining that the wafer is being polished in a center-offset manner includes
3 removing the wafer from the carrier and manually inspecting a wafer.

1 4. A method for chemical-mechanical polishing, according to claim 1, wherein the
2 wafer is being polished in a center-fast manner, and further including arranging a
3 conditioning wheel over the pad and relative to the center of the polishing table.

1 5. A method for chemical-mechanical polishing, according to claim 4, wherein
2 arranging the conditioning wheel comprises thinning the center of the pad.

1 6. A method for chemical-mechanical polishing, according to claim 1, wherein the
2 wafer is being polished in a center-slow manner, and further including arranging a
3 conditioning wheel over the pad and relative to the center of the polishing table.

1 7. A method for chemical-mechanical polishing, according to claim 6, wherein
2 arranging the conditioning wheel comprises thinning the edge of the pad.

1 8. A method for chemical-mechanical polishing, according to claim 1, wherein
2 conditioning the pad comprises altering the thickness of the pad in at least one location.

1 9. A method for chemical-mechanical polishing, according to claim 8, wherein
2 altering the thickness of the pad comprises thinning the pad in at least one location
3 where the pad is thick relative to the rest of the pad.

1 10. A method for chemical-mechanical polishing, according to claim 8, wherein
2 altering the thickness of the pad comprises applying increased pressure to a portion of
3 the pad with the wheel.

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1 11. An arrangement for chemical-mechanical polishing a wafer, the arrangement
2 comprising:

3 means for polishing a wafer;

4 means for holding a wafer face-down on the means for polishing;

5 means for determining whether the wafer is polishing in a center-offset manner;

6 and

7 means for conditioning the pad responsive to the means for determining whether
8 the wafer is polishing in a center-offset manner.

1 12. An arrangement for chemical-mechanical polishing, the arrangement
2 comprising:

3 a polishing pad arranged to rotate;

4 a wafer carrier arranged to carry a wafer, rotate, and hold the wafer face-down
5 on the polishing pad;

6 a detection arrangement adapted to detect whether the wafer is polishing in a
7 center-offset manner.

8 a conditioning device arranged to condition the pad, responsive to the detection
9 arrangement.

1 13. An arrangement for chemical-mechanical polishing, according to claim 12,
2 wherein the conditioning wheel is further arranged relative to the center of the polishing

3 table as a function of whether the wafer is polishing in a center-fast or center-slow
4 manner.

1 14. An arrangement for chemical-mechanical polishing, according to claim 12,
2 further comprising a supply arranged to supply conditioning material to the polishing
3 pad.

1 15. An arrangement for chemical-mechanical polishing, according to claim 14,
2 wherein the conditioning material is supplied responsive to the detection arrangement.

1 16. An arrangement for chemical-mechanical polishing, according to claim 15,
2 wherein the conditioning material comprises water.

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